



EXPRESS MAILING LABEL
NO. EM015925719US

PATENTS
Attorney Docket No. UV-72

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants : Franklin E. Boyer et al
Application No. : 09/330,793 Confirmation No.: 9836
Filed : June 11, 1999
For : TELEVISION SYSTEM WITH AIDED USER
PROGRAM SEARCHING
Art Unit : 2623
Examiner : Reuben M. Brown

New York, New York 10036
June 28, 2007

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Alexandria, Virginia 22313-1450

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Sir:

Appellants are filing this Appeal Brief in support of the appeal from the final rejection of claims 151-154, 156-159, 161-164, and 202-205 in the Final Office Action dated June 29, 2006. A Notice of Appeal for this case was filed on November 28, 2006.

Appellants hereby petition for a five-month extension of time under 37 C.F.R. § 1.136(a) for filing this Appeal Brief. With the extension, this Appeal Brief is due on or before June 28, 2007.

The Director is hereby authorized to charge \$2660.00 to Deposit Account No. 06-1075 in payment of the filing fee required under 37 C.F.R. § 41.20(b)(2) and the extension fee required under 37 C.F.R. § 1.17(a)(4). The Director is also hereby authorized to charge any additional fees that may be due in connection with this Appeal Brief, or credit any overpayment of the same, to Deposit Account No. 06-1075. A separate Authorization to Charge Deposit Account is enclosed for these purposes (in duplicate).

In view of the arguments and authorities set forth below, the Board should find the rejection of claims 151-154, 156-159, 161-164, and 202-205 to be in error, and the Board should reverse the rejection.

Appendices

This Brief has the following appendices:

Claims Appendix

Appendix A: Copy of claims 151-154, 156-159, 161-164, and 202-205 involved in this appeal;

Evidence Appendices

Appendix B: Copy of the Final Office Action dated June 29, 2006;

Appendix C: Copy of Ellis et al. U.S. Patent No. 5,986,650 (hereinafter "Ellis");

Appendix D: Copy of Maissel et al. U.S. Patent Publication No. 2004/0049787 (hereinafter "Maissel");

Appendix E: Copy of Herz et al. U.S. Patent
No. 5,758,257
(hereinafter "Herz");

Related Proceedings Appendix

None.

(i.) Real Party in Interest

Appellants respectfully advise the Board that the real party in interest in the above-identified patent application is United Video Properties, Inc., a corporation organized and existing under the laws of the State of Delaware, and having an office and place of business at 6922 Hollywood Boulevard, Los Angeles, CA 90028, which is the assignee of the entire interest in this application.

(ii.) Related Appeals and Interferences

Appellants advise the Board that there are no other appeals or interferences known to appellants, appellants' legal representative or appellants' assignee that will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(iii.) Status of Claims

Claims 151-154, 156-159, 161-164, and 202-205 are rejected in this application and are on appeal. Claims 1-150, 155, 160, 165-210, and 206 have been cancelled.

(iv.) Status of Amendments

Appellants have not submitted any amendment pursuant to 37 C.F.R. § 1.116 or in reply to the June 29, 2006 Final Office Action (hereinafter "Final Office Action"), from which this appeal is being sought.

(v.) Summary of Claimed Subject Matter

Appellants' independent claims 151, 156, 161, and 202 are directed toward a method, systems, and machine-readable media for aiding users in identifying programs for viewing. A television screen having video of a current program airing on a first channel is displayed. A user is allowed to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, and the display region is an overlay that is displayed while the current program is displayed on the first channel. Which program listings are displayed in the display region are limited based only on various program attributes of the current program. The user is allowed to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, and the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.

Support in the specification for claims 151, 156, 161, and 202 is found at least in the locations indicated in the following table:

Claim 151	The Specification
An interactive television program guide system for aiding a user in identifying programs for viewing, comprising:	See, e.g., p. 1, ll. 18-11; p. 11, ll. 24-31; FIG. 1, ref. 50.
user television equipment on which an interactive television program guide is at least partially implemented, wherein:	See, e.g., p. 12, l. 31 through p. 13, l. 7; p. 16, ll. 12-16; FIG 1, ref. 58.
the user television equipment is configured to display a television screen having video of a current program airing on a first channel;	See, e.g., p. 22, ll. 2-6; FIG 1, ref. 58.
the user television equipment is configured to allow the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;	See, e.g., p. 22, ll. 11-16; p. 24, l. 23 through p. 25, l. 8; FIG 5, ref. 174.
the user television equipment is configured to limit which program listings are displayed in the display region based only on various program attributes of the current program; and	See, e.g., p. 4, ll. 10-18; p. 33, ll. 15-27; FIG 1, ref. 58; FIG. 16A, refs. 282 and 284.

the user television equipment is configured to allow the user to adjust the relative importance of the various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.	See, e.g., p. 4, ll. 18-22; p. 35, ll. 15-27; FIG 1, ref. 58; FIG. 17, ref. 298.
Claim 156	The Specification
An interactive television program guide system for aiding a user in identifying programs for viewing, comprising:	See, e.g., p. 11, ll. 24-31; p. 12, ll. 1-16; p. 14, ll. 21-25; FIG. 1, ref. 50.
means for displaying a television screen (58) having video of a current program airing on a first channel;*	See, e.g., p. 12, ll. 11-12; p. 14, ll. 11-20; p. 15, ll. 14-16; FIG 1, ref. 58.
means for allowing the user to sequentially browse program listings for available programming by selectively displaying (174) each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;*	See, e.g., p. 29, ll. 19-26; FIG 5, ref. 174.

* Hereby identified as a means-plus-function element pursuant to 37 C.F.R. §41.37(c)(v).

means for limiting (282, 284) which program listings are displayed in the display region based only on various program attributes of the current program;* and	See, e.g., p. 14, l. 21 through p. 15, l. 3; FIG. 16A, refs. 282 and 284.
means for allowing (298) the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.*	See, e.g., p. 35, ll. 20-27; FIG. 17, ref. 298.
Claim 161	The Specification
In an interactive television program guide system, a method for aiding a user in identifying programs for viewing, comprising:	See, e.g., p. 1, ll. 18-11; p. 11, ll. 24-31; FIG. 1, ref. 50;
displaying a television screen having video of a current program airing on a first channel;	See, e.g., p. 22, ll. 2-6; FIG 1, ref. 58.
allowing the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;	See, e.g., p. 22, ll. 11-16; p. 24, l. 23 through p. 25, l. 8; FIG 5, ref. 174.

* Hereby identified as a means-plus-function element pursuant to 37 C.F.R. §41.37(c)(v).

limiting which program listings are displayed in the display region based only on various program attributes of the current program;	See, e.g., p. 4, ll. 10-18; p. 33, ll. 15-27; FIG. 16A, refs. 282 and 284.
allowing the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.	See, e.g., p. 4, ll. 18-22; p. 35, ll. 15-27; FIG. 17, ref. 298.
Claim 202	The Specification
Machine-readable media for use in a system in which an interactive television program guide is at least partially implemented on user television equipment, wherein the media is encoded with machine-readable instructions for performing the method comprising:	See, e.g., p. 1, ll. 18-11; p. 11, ll. 24-31; FIG. 1, ref. 50;
displaying a television screen having video of a current program airing on a first channel;	See, e.g., p. 22, ll. 2-6; FIG 1, ref. 58.
allowing the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;	See, e.g., p. 22, ll. 11-16; p. 24, l. 23 through p. 25, l. 8; FIG 5, ref. 174.

limiting which program listings are displayed in the display region based only on various program attributes of the current program; and	See, e.g., p. 4, ll. 10-18; p. 33, ll. 15-27; FIG. 16A, refs. 282 and 284.
allowing the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.	See, e.g., p. 4, ll. 18-22; p. 35, ll. 15-27; FIG. 17, ref. 298.

Appellants' dependent claims 154, 159, 164, and 205 are directed a method and systems that limit the display of program listings by using a neural network.

Support in the specification for claims 154, 159, 164, and 205 is found at least in the locations indicated in the following table:

Claim 154	The Specification
The system of claim 151 wherein the user television equipment is configured to limit which program listings are displayed by using a neural network.	See, e.g., p. 4, ll. 21-22; p. 26, l. 32 through p. 37, ll. 5; p. 37, ll. 11-21; p. 38, ll. 14 - 39; p. 40, ll. 2-23; p. 52, ll. 12-31.

Claim 159	The Specification
The system of claim 156 wherein said means for limiting comprises means for using a neural network to limit (320, 322) which program listings are displayed. *	See, e.g., p. 53, l. 29 through p. 54, l. 2; FIG 19, refs. 320 and 322.
Claim 164	The Specification
The method of claim 161 wherein limiting comprises using a neural network to limit which program listings are displayed.	See, e.g., p. 4, ll. 21-22; p. 26, l. 32 through p. 37, ll. 5; p. 37, ll. 11-21; p. 38, ll. 14 - 39; p. 40, ll. 2-23; p. 52, ll. 12-31.
Claim 205	The Specification
The machine-readable media of claim 202 wherein limiting comprises using a neural network to limit which program listings are displayed.	See, e.g., p. 4, ll. 21-22; p. 26, l. 32 through p. 37, ll. 5; p. 37, ll. 11-21; p. 38, ll. 14 - 39; p. 40, ll. 2-23; p. 52, ll. 12-31.

(vi.) Grounds of Rejection to be Reviewed on Appeal

The following ground of rejection is to be reviewed on this appeal:

Whether claims 151-154, 156-159, 161-164, and 202-205 are obvious under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz.

* Hereby identified as a means-plus-function element pursuant to 37 C.F.R. §41.37(c)(v).

(vii.) Argument

- A. Rejection of claims 151-154, 156-159, 161-164, and 202-205 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz

Appellants' independent claims 151, 156, 161, and 202 are directed toward a method, systems, and machine-readable media, respectively, for aiding users in identifying programs for viewing. Appellants' invention of these independent claims is an improvement on the "browse" feature typically found in program guides in which a user may "browse" through program listings for other times and/or channels while watching a program. Such features allow the user to access listings without disrupting, or by only minimally disrupting, the user's viewing experience.

Appellants' claimed improvement limits or filters the browse overlay to program listings for programs having attributes only of those of the displayed program (i.e., the attributes are "based only on various program attributes of the current program" (claims 151, 156, 161, and 202)). Users can adjust the relative importance of the different attributes using "weight factors" (claims 151, 156, 161, and 202) in order to more precisely customize their browsing experience. Thus, a more efficient and user friendly, customized browse experience is provided by appellants' claimed approach.

In the Final Office Action, the Examiner rejected claims 151-154, 156-159, 161-164, and 202-205 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz. Appellants respectfully traverse this rejection and request that it be overturned for each of the following reasons, individually and combined:

(1) the Examiner's combination fails to disclose limiting the browse overlay to attributes "based only on various program attributes of the current program";

(2) based on the teachings of Maissel, one skilled in the art would be lead away from making the Examiner's combination (i.e., there is no motivation to combine Maissel and Ellis); and

(3) Herz is not pertinent to appellants' claims.

1. The Examiner's Combination Fails to Disclose Each and Every Claim Limitation

It is well-established that "to establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art" (MPEP § 2143.03). In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The rejections should be overturned and the case allowed because the Examiner's combination fails to disclose the claimed feature of "limiting which program listings are displayed in the display region based only on

various program attributes of the current program"
(independent claims 151, 156, 161 and 202).

The Examiner acknowledges that this feature is not disclosed or suggested by Ellis (which discloses a browse feature - the type improved upon by appellants' claimed invention - see Ellis, abstract and col. 9, lines 30-38). The Examiner attempts to remedy this deficiency of Ellis with Maissel. Maissel, contrary to the Examiner's expressed view, does not disclose this feature.

Maissel discloses providing customization of an electronic program guide by an intelligent agent. The intelligent agent monitors viewing behavior of viewers and creates a preference profile based on the monitored viewing behavior. The intelligent agent then employs the preference profile to customize a grid-type electronic program guide based on the preference profile. See Maissel, paragraph [0031], FIGs. 9A-9C.

Maissel discloses - and only discloses - that its viewer preference profile obtains information **over a period of time**. It is **not** based only on attributes of a currently displayed program as claimed:

"The intelligent agent is typically operative to store the current program characteristics in a viewer preference profile...the viewer preference profile typically comprising information,

obtained over a period of time, on the various current program characteristics of programs viewed by a viewer at various times." See Maissel, paragraph [0122] (emphasis added).

The Examiner implicitly acknowledges this, and attempts to impermissibly broaden the disclosure of Maissel by arguing that Maissel discloses limiting only to a current program because the period of time for generating a profile may be "as short as a few minutes." See Office Action, page 4. This is not what appellant claims. As a matter of plain English, Maissel is **not** saying to build a profile based **only** on a currently displayed program. Users may take many actions during the course of a few minutes. The possibility that the range of time the viewer watches a current program may fall within the range of 'a few minutes' is mere happenstance, and limiting to a currently displayed program is not what is being taught by Maissel. When the purposes of ranges are different and the overlapping simply occurs by happenstance, obviousness is not present. See *In re Fine*, 837 F.2d 1071, 1075-76, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). Accordingly, the Examiner's reasoning is insufficient to support a conclusion that the appellants' claimed limiting is disclosed.

Thus, Ellis, Maissel, and Herz, whether taken alone or in combination, fail to show or suggest all of the

elements of appellants' claims. For at least this reason, appellants respectfully submit that the rejection of appellants' independent claims 151, 156, 161 and 202 be withdrawn.

2. The Teachings of Maissel Lead Away From Appellants' Invention

The Examiner attempts to combine Ellis and Maissel in order to provide appellants' claimed feature of "limiting which program listings are displayed in the display region based only on various program attributes of the current program". The Examiner states that one skilled would be motivated to make the combination "for the advantage of accurately estimating which programs the customer would have interest in." Office Action at p. 4. Appellants respectfully submit, however, that when the entire teachings of Maissel are considered, one skilled would be **lead away** from appellants' claimed invention. Consequently, there is no motivation to combine Maissel with Ellis. For this additional reason the rejections should be withdrawn.

When making an obviousness determination, a prior art reference must be considered in its entirety. That is, the reference must be considered "as a whole, **including portions that would lead away** from the claimed invention." MPEP § 2141.02 (emphasis added). Statements in a reference

"must be considered in the context of the teaching of the **entire reference.**" *In re Kotzab*, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (emphasis added).

As discussed, Maissel teaches monitoring viewing behavior over a period of time to create customized program listings in an attempt to identify programming of interest to the viewer. That is, Maissel teaches storing program characteristics over extended periods of time in order to build a viewer preference profile. See Maissel, paragraphs [0122]-[0123]. One skilled, considering Maissel in its entirety and attempting to apply the teachings of Maissel to customize Ellis' browse display, would be motivated (*en arguendo*) to limit the displayed program listings based on user actions accumulated over an extended period of time - not based only the currently displayed program as claimed. Thus, Maissel leads away from appellants' claimed approach, not toward it. Accordingly, a *prima facie* case of obviousness has not been made.

3. Herz Is Not Pertinent To Appellants' Claims

The Examiner further attempts to combine Herz with Ellis and Maissel in order to provide appellants' claimed feature of "allowing the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed

program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute".

Appellants respectfully submit that Herz should not be treated as prior art because it is not pertinent to the subject matter of appellants' claims. A reference is not pertinent, and therefore may not be used in an obviousness rejection, when it:

(1) is not in the same field of endeavor as appellants' invention; and

(2) is not reasonably pertinent to the same problem appellants' invention is trying to solve.

See generally In re Clay, 966 F.2d 656, 659, 23 USPQ2d 1058, 1060-61 (Fed. Cir. 1992).

First, Herz is not in the same field of endeavor as appellants' invention. Herz and appellants' invention generally deal with television systems. However, this is insufficient alone to conclude Herz and appellants' claims are in the same field of endeavor. *See Id.* (finding that the fact that the claimed invention and the reference were generally directed to the petroleum industry was insufficient alone to consider them in the same field of endeavor). A closer look into the specific teachings of

the reference and the nature of the claimed invention is required. *Id.*

Herz restricts actual **content** provided to the user. For example, Herz delivers virtual channels of video programming to the user. These virtual channels are customized based on an algorithm that takes into account user adjustable weights of video program characteristics. Such customized video program delivery is not in any way related to the teachings of appellants' claimed invention - providing related **program listings** during a browse of TV channels based on a limiting factor. For example, appellants' claimed invention limits program listings based on the program currently viewed while browsing through television channels. Appellants' claimed invention does not concern itself with custom delivery or restriction of the television programming itself. Rather, appellants' claimed invention provides additional related information to the user during their unrestricted browse of TV programming. Thus, Herz and appellants' invention plainly are not in the same field of endeavor.

Second, Herz does not solve the same problem as appellants' claimed invention. Herz's weight values allow users to specify weights for certain video program characteristics. The weights are used to filter which

actual programming is included in the customized channel. As the Examiner himself acknowledges, one of the purposes of this is to "give parents/customers more control to limit the viewing of children." See Office Action, page 5. Providing parental control of custom-generated channels is inapposite to appellants' problem. Appellants' claimed invention solves the problem of refining the browsing of television channels to provide a more efficient, customized browse feature. Delivering a subset of video programs is completely different than providing additional information while browsing television - each problem would bring different challenges and thus lead to different solutions. Thus, Herz solves a different problem than appellants' claimed invention and is not reasonably pertinent to appellants' invention.

Because Herz is neither in the same field of endeavor nor reasonably pertinent to appellants' claims, appellants respectfully submit that Herz would not have logically commended itself to an inventor's attention when considering the problem of providing related information during a browse of television channels. *Id.* Accordingly, appellants respectfully submit that Herz is not pertinent, and the Examiner's combination of Ellis, Maissel, and Herz is insufficient as a matter of law.

4. Conclusion

In view of the forgoing, appellants submit that the Board should reverse the obviousness rejection of claims 151, 156, 161, and 202 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz. Appellants submit that the board should reverse the obviousness rejection of claims 152-154, 157-159, 162-164, and 203-205 at least because claims 152-154, 157-159, 162-164, and 203-205 depend from independent claims 151, 156, 161, and 202 respectively (see *In re Fine* at 1600).

B. Rejection of claims 154, 159, 164, and 205 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz

In the Final Office Action, the Examiner rejected dependent claims 154, 159, 164, and 205 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz.

Appellants' dependent claims 154, 159, 164, and 205 are directed toward a method, systems, and machine-readable media for configuring the user television equipment to limit which program listings are displayed by using a neural network.

Herz refers to creating customized virtual channels from an agreement matrix that is calculated by comparing user profiles to actual profiles of the

characteristics of the available video programs. The Examiner contends that the calculation of this agreement matrix in Herz constitutes a neural network. However, nowhere do the algorithms in Herz suggest those of a neural network. None of the elements of Herz's algorithm resemble an artificial neuron, nor does there appear to be any sort of learning algorithm. Rather, Herz is merely a recursive algorithm. Ellis and Herz also do not show limiting program listings using a neural network. Thus, the combination of Ellis, Maissel, and Herz fails to show or suggest all of the elements of dependent claims 154, 159, 164, and 205.

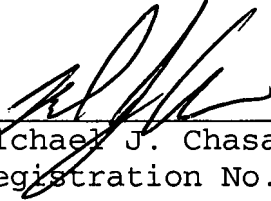
Further, the only time which neural networks are even mentioned in Herz disparages them as a means of computation (see Herz, col. 34, lines 24-30). Thus, Herz teaches away from using a neural network in the manner required by appellants' claims.

For at least these additional reasons, appellants submit that the Board should reverse the obviousness rejection of dependent claims 154, 159, 164, and 205 under 35 U.S.C. § 103(a) over Ellis in view of Maissel and further in view of Herz.

C. Conclusion

For the reasons set forth above, appellants submit that claims 151-154, 156-159, 161-164, and 202-205 are in condition for allowance. The Examiner's rejections of these claims should be reversed.

Respectfully submitted,



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(viii.) Claims Appendix

CLAIMS APPENDIX A

CLAIMS 151-154, 156-159, 161-164, AND 202-205 ON APPEAL

1-150. (Cancelled)

151. An interactive television program guide system for aiding a user in identifying programs for viewing, comprising:

user television equipment on which an interactive television program guide is at least partially implemented, wherein:

the user television equipment is configured to display a television screen having video of a current program airing on a first channel;

the user television equipment is configured to allow the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;

the user television equipment is configured to limit which program listings are displayed in the display region based only on various program attributes of the current program; and



the user television equipment is configured to allow the user to adjust the relative importance of the various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.

152. The system of claim 151 wherein the user television equipment is configured to limit which program listings are displayed by building a list of program listings from a program listings database based on the various program attributes of the current program.

153. The system of claim 151 wherein the user television equipment is configured to allow the user to select the displayed program listing to access the program associated with the displayed program listing.

154. The system of claim 151 wherein the user television equipment is configured to limit which program listings are displayed by using a neural network.

155. (Canceled)

156. An interactive television program guide system for aiding a user in identifying programs for viewing, comprising:

means for displaying a television screen having video of a current program airing on a first channel;

means for allowing the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;

means for limiting which program listings are displayed in the display region based only on various program attributes of the current program; and

means for allowing the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.

157. The system of claim 156 wherein said means for limiting comprises means for building a list of program listings from a program listings database based on the various program attributes of the current program.

158. The system of claim 156 further comprising means for allowing the user to select the displayed program listing to access the program associated with the displayed program listing.

159. The system of claim 156 wherein said means for limiting comprises means for using a neural network to limit which program listings are displayed.

160. (Canceled)

161. In an interactive television program guide system, a method for aiding a user in identifying programs for viewing, comprising:

displaying a television screen having video of a current program airing on a first channel;

allowing the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display

region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;

limiting which program listings are displayed in the display region based only on various program attributes of the current program; and

allowing the user to adjust the relative importance of various program attributes of the current program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.

162. The method of claim 161 wherein the limiting comprises building a list of program listings from a program listings database based on the various program attributes of the current program.

163. The method of claim 161 further comprising allowing the user to select the displayed program listing to access the program associated with the displayed program listing.

164. The method of claim 161 wherein limiting comprises using a neural network to limit which program listings are displayed.

165-201. (Canceled)

202. Machine-readable media for use in a system in which an interactive television program guide is at least partially implemented on user television equipment, wherein the media is encoded with machine-readable instructions for performing the method comprising:

displaying a television screen having video of a current program airing on a first channel;

allowing the user to sequentially browse program listings for available programming by selectively displaying each program listing separately in a display region on the television screen, wherein the display region is an overlay that is displayed while the current program is displayed on the first channel;

limiting which program listings are displayed in the display region based only on various program attributes of the current program; and

allowing the user to adjust the relative importance of various program attributes of the current

program that are used to limit the displayed program listings, wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute.

203. The machine-readable media of claim 202 wherein the limiting comprises building a list of program listings from a program listings database based on the various program attributes of the current program.

204. The machine-readable media of claim 202 further encoded with machine-readable instructions for allowing the user to select the displayed program listing to access the program associated with the displayed program listing.

205. The machine-readable media of claim 202 wherein limiting comprises using a neural network to limit which program listings are displayed.

206. (Canceled)

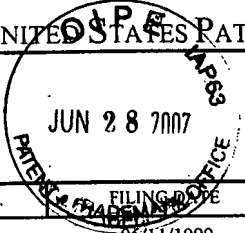
(ix.) Evidence Appendix

EVIDENCE APPENDIX B
COPY OF THE FINAL OFFICE ACTION DATED JUNE 29, 2006



UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/330,793	06/11/1999	FRANKLIN E. BOYER	UV-72	9836

7590 06/29/2006
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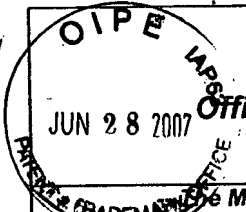
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DATE MAILED: 06/29/2006

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REFERRED TO: JMG/MSJ
NOTED BY: _____

Please find below and/or attached an Office communication concerning this application or proceeding.

File No.: UV-72
Action Desc: Response to Final OA
Due Date: 9-29-06
By: IK

<div style="text-align: center;">  <p>Office Action Summary</p> </div>	Application No. 09/330,793	Applicant(s) BOYER ET AL.	
	Examiner Reuben M. Brown	Art Unit 2623	

MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on 03 April 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) 151-154, 156-159, 161-164 and 202-205 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 151-154, 156-159, 161-164, 202-205 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____
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DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 151-154, 156-159, 161-164 & 202-205 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ellis, (U.S. Pat # 5,986,650), in view of Maissel, (U.S. PG PUB 2004/0049787 A1) and Herz, (U.S. Pat # 5,758,257).

Considering amended claims 151, 156 & 161, the interactive EPG system or method for aiding a user in identifying programs for viewing, comprising user equipment wherein an EPG is

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at least partially implemented is met by Ellis, (Fig 5A & Fig. 7). Ellis, col. 9, lines 1-10 & col. 12, lines 28-52, meets the claimed feature of the TV equipment displaying a current program, while also displaying the EPG.

The additionally claimed feature of the TV equipment allowing the user to sequentially browse program listings for available programming by selectively displaying a display region reads on Ellis. The reference teaches that while in FLIP or BROWSE mode, that the user is enabled to sequence through a list of TV programs, col. 9, lines 31-35; col. 9, lines 61-65 & col. 12, lines 44-50.

The amended claimed feature of the display region being an overlay, and separately displaying each program listing is met by the discussion of Ellis, of the graphic overlay region 111, see col. 12, lines 37-60. Ellis goes on to teach that each program listing, i.e., each particular program is separately displayed on the screen, see Fig. 7-Fig. 8B; Fig. 11A-12A & col. 12, lines 44-67, which meets the claimed subject matter. As for the further claimed feature, 'wherein the display region is an overlay that is displayed while the current program is displayed on the first channel', Ellis teaches that "graphic overlay information that appears in the FLIP mode..., may or may not be the channel currently being viewed by the user", col. 12, lines 28-42, which reads on the further claimed feature.

Regarding the further amended claimed feature of the 'TV equipment configured to limit which program listings are displayed in the display region based only on various program

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attributes of the current TV program', Ellis discloses that while in FLIP mode, the viewer may look at the EPG according to favorite channel lists, col. 10, lines 35-39. Ellis also teaches that the list of programs shown to the user while in BROWSE/FLIP mode may be limited to a particular category of interest, such as Sport, for instance (col. 17, lines 8-20). However, this favorite channel or Category list does not explicitly require that the channels/programs be based only on program attributes of the current program. Nevertheless, Maissel teaches the well known technology of monitoring the programs/channels watched by customers and providing a listing of programs/channels likely to be of interest to the customer based upon a matching of the attributes of the viewed programs and the customer's viewer profile, Para [0031]. However, Maissel goes on to also teach that the intelligent agent 130 stores the characteristics of the current program in a viewer preference profile, and that even though the viewer preference profile may reflect as long as a year or more of viewing, the period of time for monitoring optionally may be set to only a few minutes, which clearly reads on the claimed, 'only the current program', see Para [0122]. Furthermore, Maissel discloses that the user may eliminate old information from the profile, which is additional evidence of the reference meeting the amended claimed feature, Para [0123].

It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Ellis with the technique of providing listing of programs based on the attributes of the current program viewed, for the advantage of accurately estimating which programs the customer would have interest in, as taught by Maissel, Para [0122-0124].

The additionally claimed feature of allowing the user to adjust the relative importance of the various program attributes that are used to limit the displayed program listings reads on the discussion in Maissel that viewers may adjust various aspects of the preference profile, Para [0124-0132]. Regarding the further claimed feature, 'wherein the adjustment of the relative importance is performed by adjusting a weight factor for each program attribute', Maissel teaches that the viewer preference profile may contain information on preference strength, Para [0123], but does not explicitly teach 'adjusting a weight factor', as presently recited in the claim. Nevertheless Herz, which is in the same field of endeavor, discloses at least two instances of a customer adjusting weight factors of characteristics used in filtering programming. First, using the Rave Review technique, subscribers may adjust the preferred level (i.e., weighting) of particular characteristics/attributes of movies, col. 14, lines 20-50. Herz, also discusses in general, that a customer manually changing or modifying weights and values of certain TV programming characteristics, col. 46, lines 6-18. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Ellis & Maissel with the technique of adjusting the importance of TV programming characteristics by using weight factors, at least for the desirable benefit of giving parents/customers more control to limit the viewing of children; see Herz col. 46, lines 10-18.

Considering claims 152, 157, 162 & 203, the claimed subject reads on the disclosure of Maissel, Para [0122-0123].

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Considering claims 153, 158, 163 & 204, the claimed subject matter reads on the subscriber selecting the desired program from the EPG, see Maissel, Para [0202-0204] & Fig. 9A-9C.

Considering claims 154, 159, 164 & 205, the claimed neural network reads on system of Maissel, generating a viewer profile array in software, Para [0122] & [0132] and the calculation/adjustment of the agreement matrix in Herz, using various factors, (col. 30-col. 39).

Considering claim 202, the claimed machine-readable media for use in a system in which an interactive TV EPG is at least partially implemented wherein the media is encoded with machine-readable instructions for performing method steps that correspond with subject matter mentioned above in the rejection of claims 151, 156 & 161, are likewise rejected. Both Ellis (Fig. 1) & Maissel are directed to a computer driven system that discloses the use of machine-readable media to perform the features discussed above in the claims.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

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Any response to this action should be mailed to:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

or faxed to:

(571) 273-8300, (for formal communications intended for entry)

Or:

(571) 273-7290 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben M. Brown whose telephone number is (571) 272-7290. The examiner can normally be reached on M-F (9:00-6:00), First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone numbers for the organization where this application or proceeding is assigned is (571) 273-8300 for regular communications and After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Reuben M. Brown

 **HALTRAN**
PRIMARY EXAMINER

Notice of References Cited

Application/Control No.

09/330,793

Applicant(s)/Patent Under

Reexamination
BOYER ET AL.

Examiner

Reuben M. Brown

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U.S. PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2004/0049787	03-2004	Maissel et al.	725/046
	B	US-			
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

FOREIGN PATENT DOCUMENTS

		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
*	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

EVIDENCE APPENDIX C
COPY OF ELLIS ET AL. U.S. PATENT NO. 5,986,650

(x.) Related Proceedings Appendix

None.